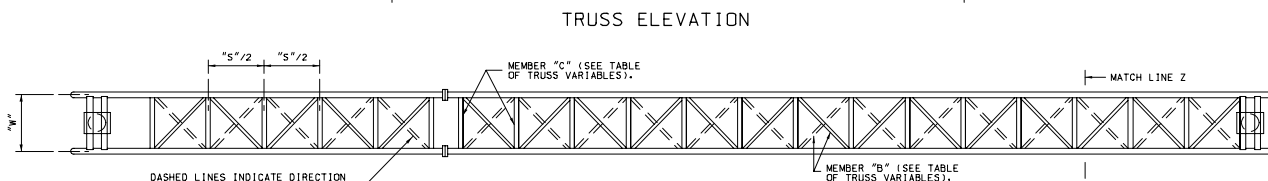


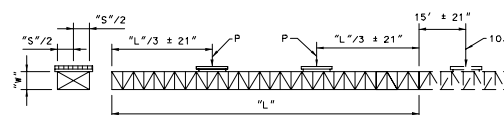
ELEVATION
(SIMPLE TRUSS)



TRUSS ELEVATION



PLAN

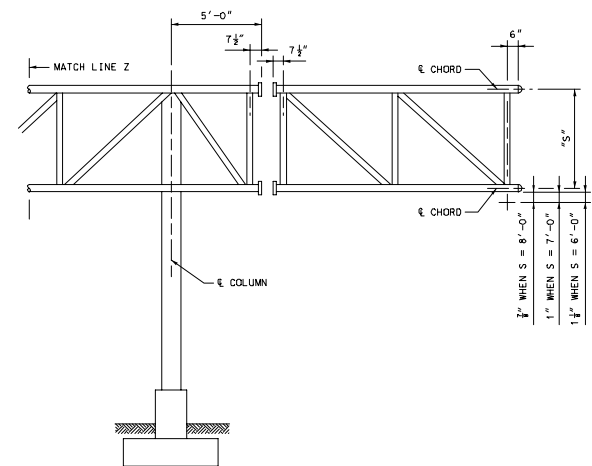


$P = \frac{84\alpha w}{L} - 0.02 L$ WHERE
 P = CONCENTRATED LOAD IN KIPS.
 α = AREA OF ONE CHORD TUBE IN SQUARE INCHES.
 (USE 0.760 FOR 4" DIA. x 1/4"
 AND 0.1/2" DIA. x 1/4" CHORDS)
 w = WIDTH OF TRUSS IN FEET.
 L = SPAN LENGTH IN FEET.

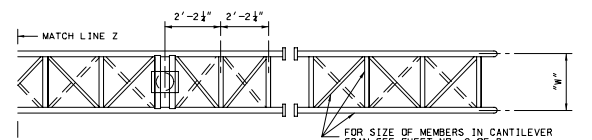
SAMPLE, GIVEN: $\alpha = 4.123$ SQ. IN., $w = 6'-0"$ AND $L = 100'$.
 SOLUTION: $P = \frac{84 \times 4.123 \times 6.0}{100} - 0.02 \times 100 = 20.8 - 2 = 18.8'$

NOTE: IF CANTILEVERED, REMOVE CONCENTRATED LOAD NEAREST CANTILEVER
 15' OR LESS CANTILEVER SPANS NEED NOT BE TESTED.
 REPEAT ABOVE TESTS BY ROTATING 180° (TO SIMULATE WIND REVERSAL).
 NO VERTICAL LOAD (D.L.) TEST WILL BE REQUIRED.
 LOADS P SHALL NOT BE MORE THAN 16.4 FOR SPANS LESS THAN 55 FEET
 AND 20.4 FOR ALL OTHERS.

SIMULATED WIND-SHOP TEST LOADING



ELEVATION
(SIMPLE TRUSS MODIFIED
FOR CANTILEVER SPAN)



PLAN

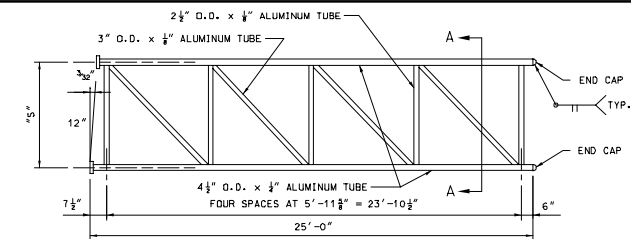
GENERAL NOTES:
 ALL STRUCTURAL STEEL AND COLUMN BASE PLATES ASTM A36.
 ALL ANCHOR BOLTS ASTM A307.
 PROPOSED FIELD SPLICES SHALL BE SHOWN ON SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.
 TRUSSES SHALL BE FABRICATED WITH A MINIMUM OF SPLICING IN TRUSS CHORDS.
 FIELD SPLICING WILL NOT BE PERMITTED WITHIN THE MIDDLE ONE-THIRD OF SPAN.
 PERMISSIBLE VENT HOLES (MAXIMUM 1/2" DIAMETER) SHALL BE PLACED A MINIMUM OF 3" FROM WELD ON LOW SIDE OF HORIZONTAL, VERTICAL AND DIAGONAL TUBES.
 FOR ADDITIONAL INFORMATION SEE DATA SHEET.

TRUSS VARIABLES					
SPAN	"S"	"W"	MEMBER "A"	MEMBER "B"	MEMBER "C"
UP TO 70'-6"	6'-0"	5'-0"	2 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"	1 1/2" DIA. x 1/4"
71' TO 80'-6"	6'-0"	6'-0"	2 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"	2" DIA. x 1/4"
81' TO 90'-6"	6'-0"	6'-0"	2 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"	2" DIA. x 1/4"
91' TO 100'-6"	6'-0"	6'-0"	2 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"
101' TO 110'-6"	7'-0"	7'-0"	2 1/2" DIA. x 1/4"	3" DIA. x 1/4"	2 1/2" DIA. x 1/4"
111' TO 120'-6"	7'-0"	7'-0"	2 1/2" DIA. x 1/4"	3 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"
121' TO 130'-6"	7'-0"	7'-0"	3" DIA. x 1/4"	3 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"
131' TO 140'-6"	8'-0"	7'-0"	3" DIA. x 1/4"	3 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"
141' TO 150'-6"	8'-0"	7'-0"	3" DIA. x 1/4"	3 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"
151' TO 160'-6"	8'-0"	7'-0"	3" DIA. x 1/4"	3 1/2" DIA. x 1/4"	2 1/2" DIA. x 1/4"

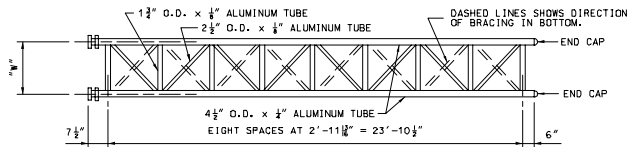
NOTE: FOR SIZE OF CHORD MEMBERS, SEE DATA SHEET.

SHOP CAMBER MAY BE PARABOLIC OR STRAIGHT, BUT SHALL BE SYMMETRICAL ABOUT CENTERLINE OF SPAN.

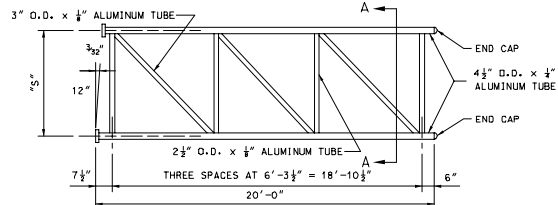
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES			
ALUMINUM			
DATE: _____	EFFECTIVE: 07-01-2002	903.10Y	1/6



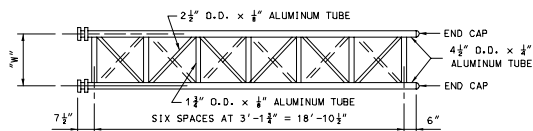
ELEVATION



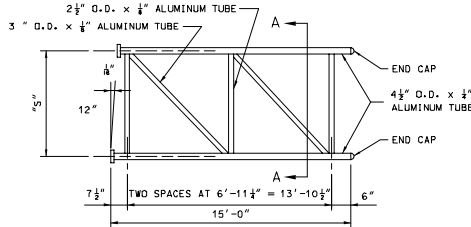
PLAN
25' - CANTILEVER SECTIONS



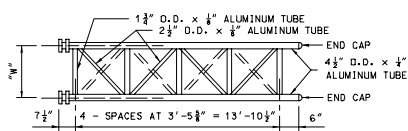
ELEVATION



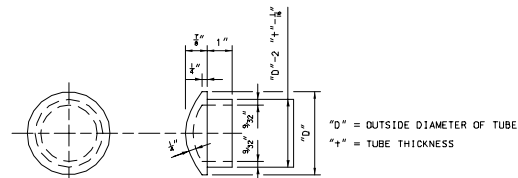
PLAN
20' - CANTILEVER SECTIONS



ELEVATION



PLAN
15' - CANTILEVER SECTIONS

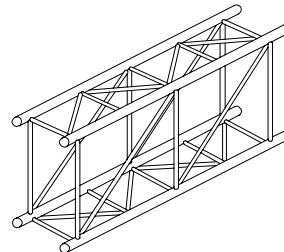


DETAIL OF END CAP CASTING
(DRIVE FIT TYPE)

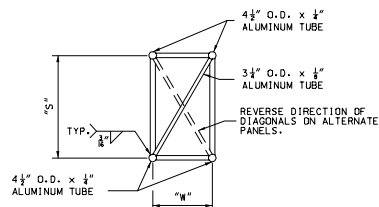


DETAIL OF ALTERNATE END CAP

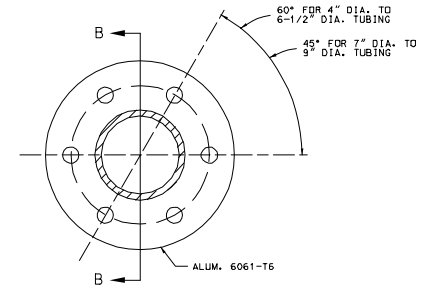
NOTE: WHEN THE VERTICALS, STRUTS AND SWAYS OBSTRUCT THE PLACING OF BOLTS IN THE FLANGES THESE MEMBERS MAY BE MOVED BACK IN ORDER TO CLEAR THE BOLTS. (ONE SIDE OF SPLICE ONLY).



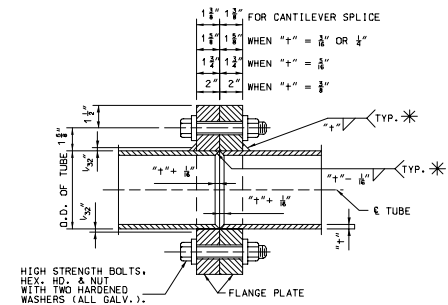
TYPICAL ISOMETRIC VIEW
OF TRUSS



SECTION A-A



PLAN OF FLANGE PLATE



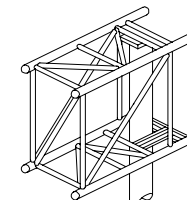
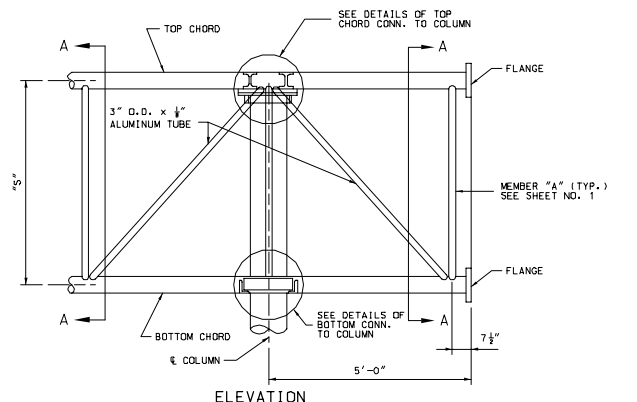
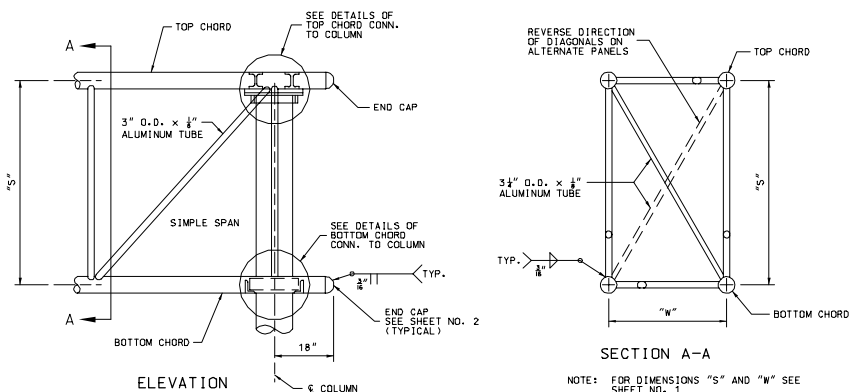
* "t" = SMALLER TUBE WALL THICKNESS.

SECTION B-B

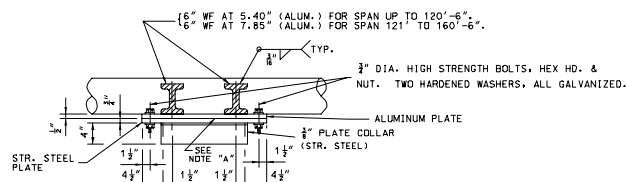
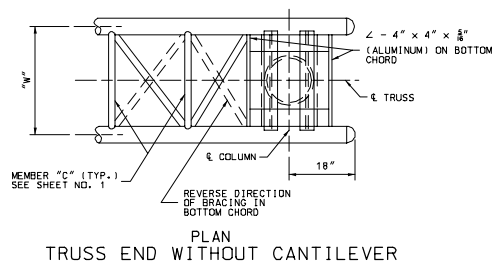
NOTE: A WELDING SEQUENCE ASSURING FULL CONTACT OF FLANGE FACES SHALL BE REQUIRED. DRILL OR REAM FLANGE HOLES 1/8" LARGER THAN NORMAL DIAMETER OF BOLTS OR TUBING.

TUBE SIZE	BOLT NO. AND DIA.	TORQUE
4" DIA. TO ALL DIAMETERS	6-3/4" DIA.	320 FT.LB. OR ONE-HALF TURN
4-1/2" DIA. THRU 6-1/2" DIA.	6-3/4" DIA.	320 FT.LB. OR ONE-HALF TURN
7" DIA. THRU 7-1/2" DIA.	8-3/4" DIA.	320 FT.LB. OR ONE-HALF TURN
8" DIA. THRU 9" DIA.	8-7/8" DIA.	470 FT.LB. OR ONE-HALF TURN

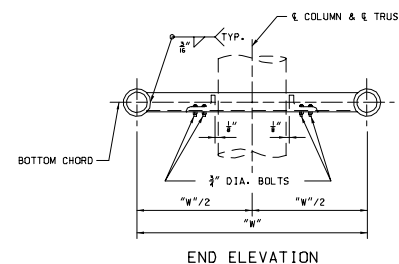
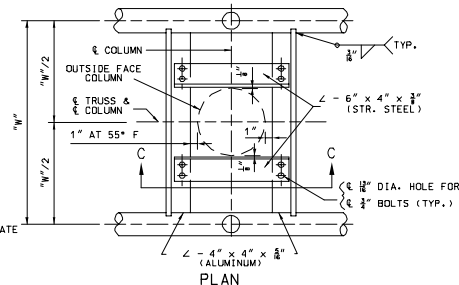
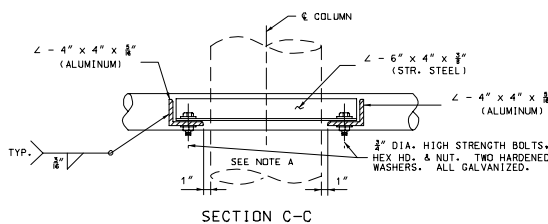
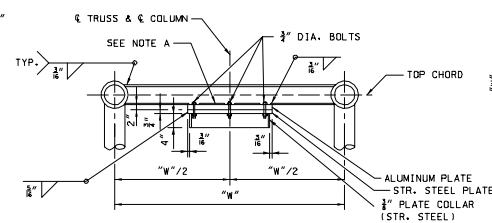
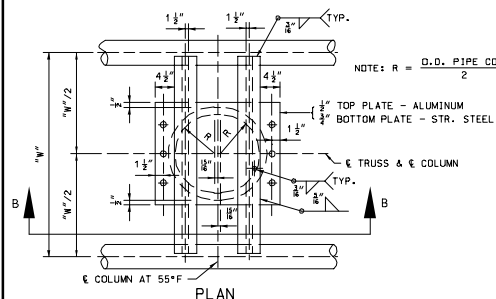
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES			
ALUMINUM			
DATE: _____	EFFECTIVE: 07-01-2002	903.10Y	2/6



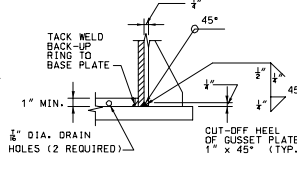
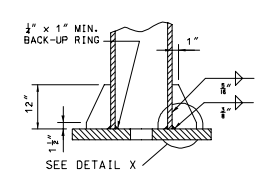
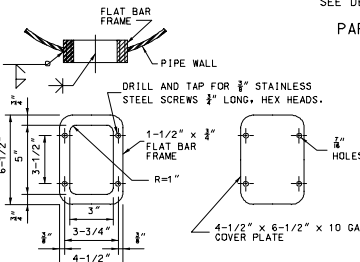
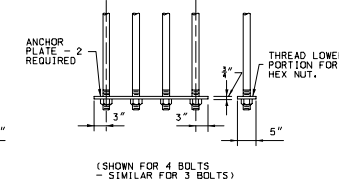
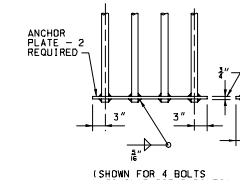
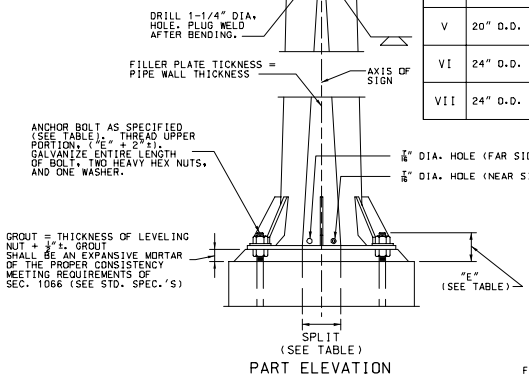
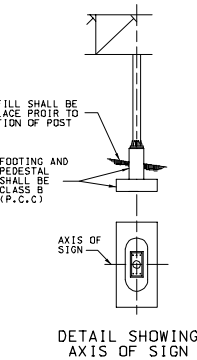
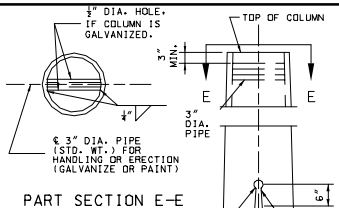
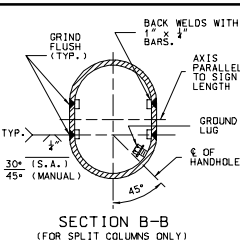
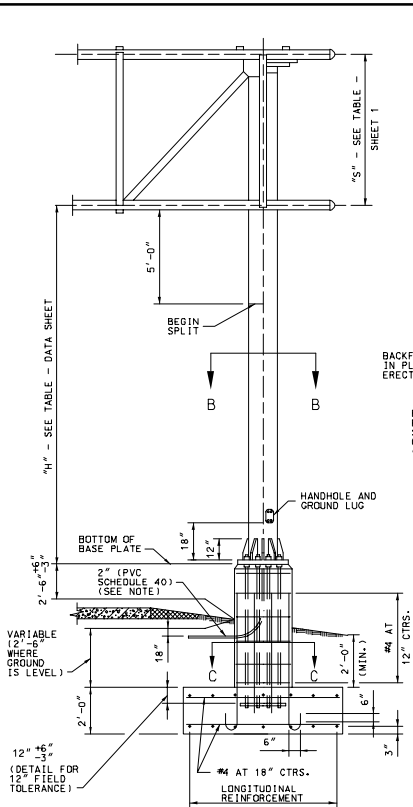
TYPICAL ISOMETRIC VIEW OF END SECTION



NOTE A: CONNECTIONS IN WHICH STEEL AND ALUMINUM ARE IN CONTACT SHALL BE PROTECTED AS FOLLOWS:
ONE COAT ZINC CHROMATE ON ALUMINUM SURFACES.
NORMAL CLEANING AND PAINTING ON STEEL SURFACES.
NO ZINC CHROMATE REQUIRED IF STEEL IS GALVANIZED.



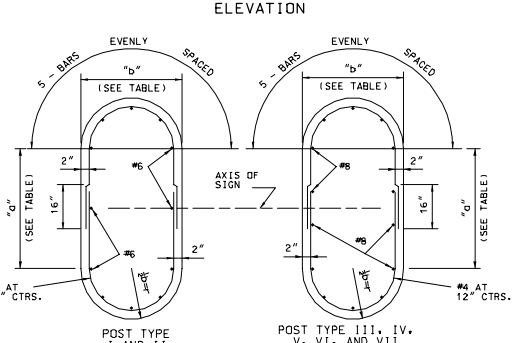
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES			
ALUMINUM			
DATE: _____	EFFECTIVE: 07-01-2002	903.10Y	3 6



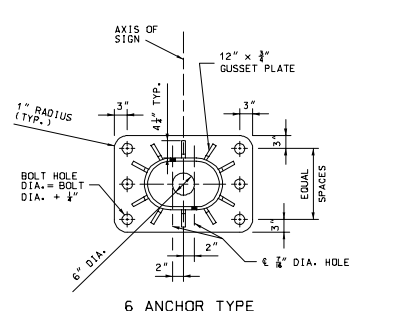
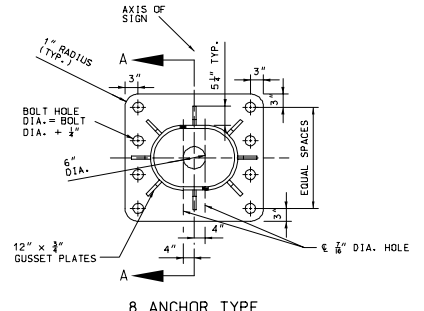
POST TYPE	PIPE COLUMN	DIMEN-SION E	SPLIT	BASE PLATE SIZE*	ANCHOR BOLTS DIA.	PEDESTAL SIZE*		FOOTING SIZE*	LONGITUDINAL REINFORCEMENT		CON-CRETE CU. YDS
						a	b		TOP	BOTTOM	
I	12" STD. AT 65.42	8-1/2"	6"	2'-6" x 23" x 1-1/2"	6 AT 2-1/4"	4'-0"	2'-11"	7'-0" x 14'-6"	7 - #6 BARS	7 - #6 BARS	10.9
II	14" O.D. AT 72.09	8-1/2"	9-1/2"	3'-0" x 2'-0" x 1-1/2"	6 AT 2-1/4"	4'-4"	3'-0"	8'-0" x 16'-0"	8 - #5 BARS	9 - #6 BARS	13.2
III	16" O.D. AT 82.77	8-3/4"	11-1/2"	3'-4" x 2'-2" x 1-3/4"	6 AT 2-1/4"	4'-8"	3'-2"	8'-6" x 17'-6"	9 - #5 BARS	9 - #7 BARS	15.2
IV	18" O.D. AT 93.45	9-1/2"	12-1/2"	3'-7" x 2'-4" x 2"	6 AT 2-1/2"	5'-1"	3'-4"	9'-6" x 19'-0"	10 - #5 BARS	10 - #8 BARS	18.1
V	20" O.D. AT 104.13	9-1/2"	13"	3'-10" x 2'-9" x 2"	8 AT 2-1/2"	5'-4"	3'-9"	10'-0" x 20'-0"	10 - #5 BARS	10 - #8 BARS	20.6
VI	24" O.D. AT 125.49	9-1/2"	10-1/2"	4'-0" x 3'-3" x 2"	8 AT 2-1/2"	5'-6"	4'-3"	10'-6" x 21'-0"	11 - #5 BARS	11 - #8 BARS	23.3
VII	24" O.D. AT 125.49	9-1/2"	13-1/2"	4'-3" x 3'-3" x 2"	8 AT 2-1/2"	5'-9"	4'-3"	11'-0" x 22'-0"	11 - #5 BARS	11 - #9 BARS	25.1

* BASE PLATES, PEDESTAL, AND FOOTINGS, LONGER SIDES SHALL BE NORMAL TO AXIS OF SIGN.

NOTE: THE 2" CONDUIT IN THE CONCRETE PEDESTAL SHALL BE PVC SCHEDULE 40 AND SHALL BE PLACED WITH A MINIMUM RADIUS BEND OF 9'-1/2".



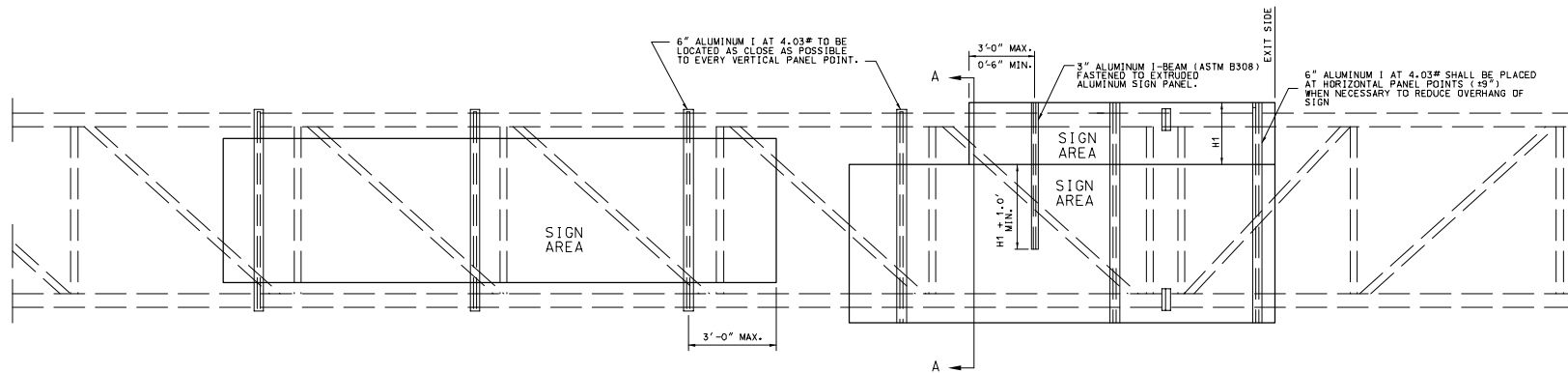
NOTE: FOR DETAILS OF ALTERNATE PEDESTAL, SEE SHEET NO. 5 OF 6.



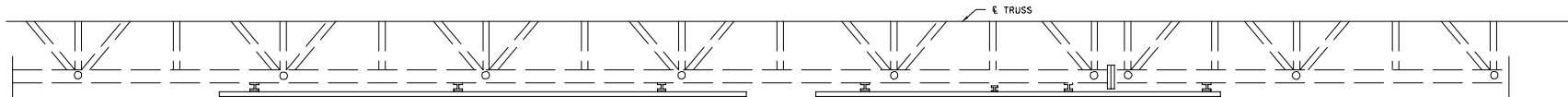
TYPICAL BASE PLATES

GENERAL NOTES:
 A TAPERED TUBE OF EQUIVALENT SIZE AND THICKNESS MAY BE SUBSTITUTED FOR PIPE POST.
 ALL STEEL PIPE COLUMNS SHALL BE EITHER GRADE "B" SEAMLESS STEEL PIPE OR GRADE "B" ELECTRIC RESISTANCE WELDED STEEL PIPE A.S.T.M. SPECIFICATION A53. NO OBJECTIONABLE SEAMS WILL BE PERMITTED.
 ALL STRUCTURES SHALL BE GROUNDED.
 BURR THREADS ON ALL ANCHOR BOLTS.
 A HORIZONTAL WELDED SPLICE MAY BE FABRICATED IN THE COLUMN BETWEEN THE TOP OF PIPE AND 4'-0" BELOW THE BOTTOM CHORDS OF THE TRUSS WHEN DETAILED ON THE SHOP DRAWINGS AND APPROVED BY THE ENGINEER.
 GROUND LUGS SHALL BE LOCATED INSIDE COLUMN NEAR HAND HOLE.
 QUANTITIES FOR PEDESTAL, BASED ON NOMINAL HEIGHT OF 5'-0".
 QUANTITIES FOR FOOTING, BASED ON NOMINAL DEPTH OF 2'-0".
 QUANTITIES SHOWN ARE FOR ONE COLUMN ONLY.

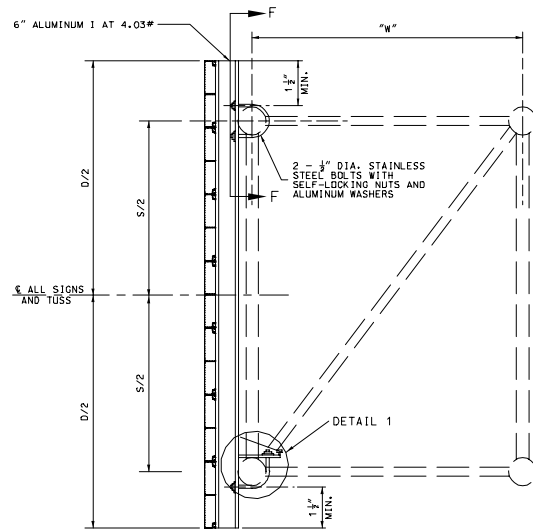
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES			
ALUMINUM			
DATE: _____	EFFECTIVE: 07-01-2002	903.10Y	4 6



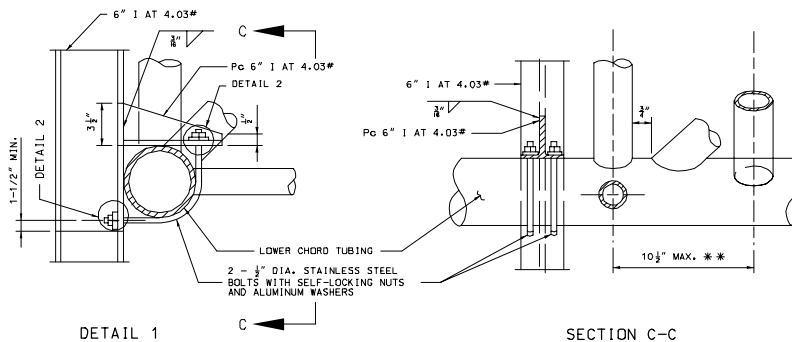
TYPICAL ELEVATION OF SIGN COMPONENTS



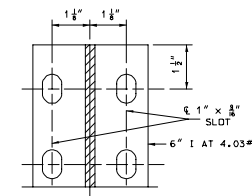
TYPICAL HALF PLAN OF SIGN COMPONENTS



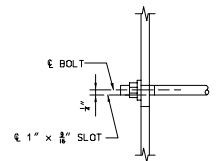
SECTION A-A
TYPICAL SECTION OF SIGN SUPPORT



** LOCATE THE INTERIOR DIAGONAL AS CLOSE AS POSSIBLE TO THE CENTERLINE OF THE PANEL POINT WITHOUT OVERLAPPING WELDS.



SECTION F-F



DETAIL 2

GENERAL NOTES:

EXIT NO. PANELS SHALL BE MOUNTED FLUSH WITH THE EXIT SIDE OF THE GUIDE SIGN.
ALL SIGNS SHALL BE CENTERED VERTICALLY ABOUT THE HORIZONTAL & OF THE TRUSS.
SEE STD. PLAN 903.09 FOR LIGHTING DETAILS IF LIGHTING THE SIGN IS NECESSARY.
SEE STD. PLAN 903.03 FOR SIGN MOUNTING DETAILS.
ALL MATERIAL ALUMINUM EXCEPT AS NOTED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES			
ALUMINUM			
DATE: _____	EFFECTIVE: 07-01-2002	903.10Y	6/6